



**Arrowhead Center®**  
*ACCELERATING ECONOMIC DEVELOPMENT*

[arrowheadcenter.org](http://arrowheadcenter.org)  
575-646-1434

## **Arrowhead Center**

Office of the Vice President for Economic Development  
New Mexico State University

Presented to:  
NM State Senator Tim Keller

September 13, 2012



# *Arrowhead at a Glance*

*To develop strategic partnerships that create economic opportunity for the citizens of New Mexico and enhance the mission, purpose, and advancement of the university.*

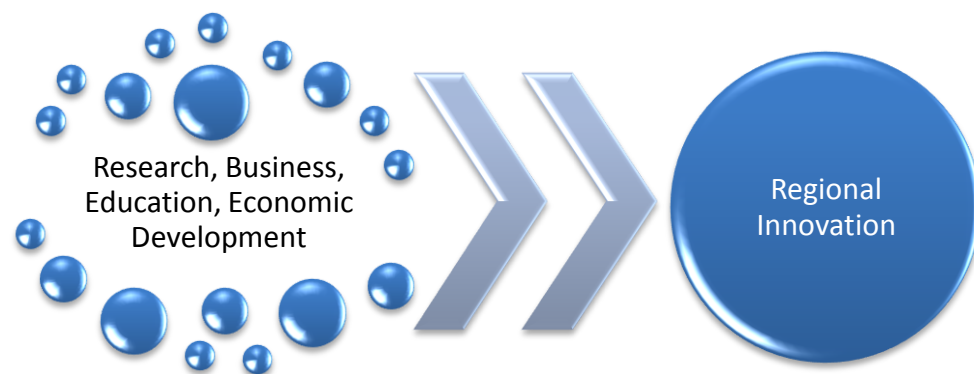
- Founded in 2004
- The Dean of the College of Business serves as the Vice President for Economic Development and as President of Arrowhead Center
- Environment where education, innovation, and economic development meet
- Economic Development: A process for creating economic opportunities for individuals and growth opportunities for enterprises, raising the standard of living for New Mexicans.



# *What and How*

## WHAT WE DO:

Create an innovation-driven economy.



## HOW WE DO IT:

**Conduct research** to move ideas to market.

**Launch start-up companies** by serving and supporting the entrepreneur from idea to enterprise.

**Support the growth** of successful companies at the research park.

**Provide students with directed learning experiences** to expand their skill sets and prepare them to enter the innovation workforce.

**Analyze the impact of public policies** on the economy.

# Who

## WHO WE DO IT FOR:

Those throughout New Mexico who are eager to embrace new and emerging ideas.



# Entrepreneurship Institute

## WHAT WE DO:

Conduct research to move ideas to market and train entrepreneurs.

## HOW WE DO IT:



Entrepreneur  
Ventures



Student  
Business  
Incubator



E-  
Laboratory



NME-  
Alliance



Innoventure

# *Entrepreneur Ventures*

- Student led, client focused research and assistance for entrepreneurs, researchers, innovators, and government organizations
- Student innovation teams, multi-disciplinary, all colleges
- Over 375 studies since 2004 performed by 300 students
- Business and marketing plans, feasibility studies, and market analyses





# *Entrepreneur Ventures Snapshot*

## Examples of Recent Studies

### Space Sciences Corporation

- **Scope of work:** Craft a plan to help define markets for HALO (Hover Airlift and Logistics Operations) craft, an alternative transportation craft in development for homeland security, search/rescue, and recreation applications.

### MVEDA

- **Scope of Work:** Characterize market segments that will be impacted by the Spaceport; identify economic development opportunities arising from operations at the facility.

### Downtown Las Cruces Partnership

- **Scope of Work:** Develop a “destination study:” identifying the factor or factors that will serve to distinguish the Downtown area as a desirable space to visit or establish a business.

# Studio G



- 1<sup>st</sup> university-based student incubator in New Mexico
- A place where ideas grow
- Open to current NMSU students or recent alums
- 6 student companies in Studio G, one graduated company
- Most important? The ability to network and learn from others
- <http://studiognmsu.ning.com/>



# *Arrowhead Technology Incubator*

## WHAT WE DO:

Accelerate technology-based entrepreneurial growth.



Energy



Space &  
Aerospace



Homeland  
Security



Information  
Technology

# *ATI Client Snapshot*



**SiliconMesa Corporation** is a business service company that provides cloud-based software and secure data storage solutions.



**MiniMilestones** has developed a sophisticated screening tool which will help assess the progress of children's development in core areas, or milestones. The screening is quick and simple and will provide results on where a child stands in plain terms; no doctor-speak. Users instantly know whether their child is developing at, above, or below average. Along with the child screening, Parents will receive access to a growing library of articles and videos to help guide through specific developments.



**Solutionhead Technologies** specializes in software development and business efficiency through technology integration. They provide custom software development, graphic design and brand identity.



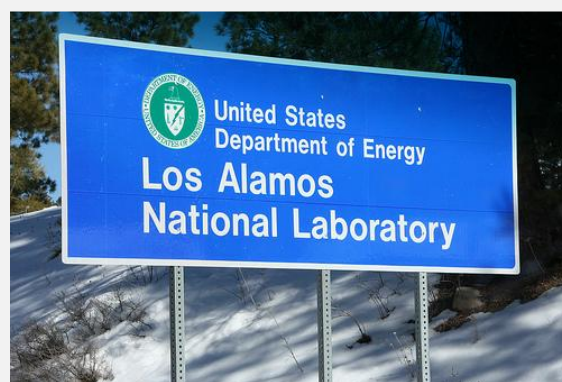
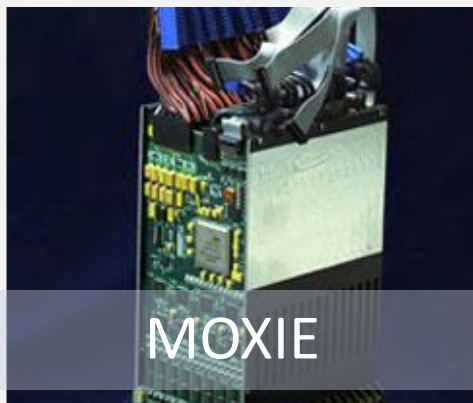
**Cinnafilm**, a leader in GPU-based video format conversion, was founded to address the absence of quality, software-based tools to visually optimize, convert, and repurpose video images for cinema, broadcast, and web.

# *National Lab Collaboration*

Student teams devoted to analyzing technologies, validating markets and investigating licensing opportunities.

## **Past and Present Projects**

- MOXIE: Movies of eXtreme Imaging Experiments
  - Students forming a business and licensing technology
- RADIUS: Rapid Automated Decomposition of Images for Ubiquitous Sensing
- YXO, Inc.: Composite structure and frame solutions for the automotive and aerospace industries



# *NM Small Business Assistance*

NMSBA allows New Mexico small businesses facing technical challenges to access the unique expertise and capabilities of Los Alamos, Sandia, and universities.

- No cost to the business
- Receive assistance from lab scientists or engineers for projects that require testing, design consultation, and access to special equipment or facilities

NMSBA growth @ Arrowhead:

- 2010: 3 projects
- 2011: 10 projects
- 2012: 17 projects expected to bring in over \$140,000
- The NMSBA program **leverages the expertise of NMSU resources**, partnering with more than a dozen faculty and staff from five colleges on campus.

# Arrowhead Park

## WHAT WE DO:

Inspire an emerging hub for innovation and creativity that links scientists, technologists, and entrepreneurs contributing to New Mexico's economic development.



## HOW WE DO IT:

**Manage a 200+ acre** public-private land development partnership on NMSU.

**Develop mutually beneficial relationships** between NMSU and industry.

**Recruit private sector and government tenants**

- Early College High School.

**Drive developmental activities** that contribute to the growth of the Park and entrepreneurial community:

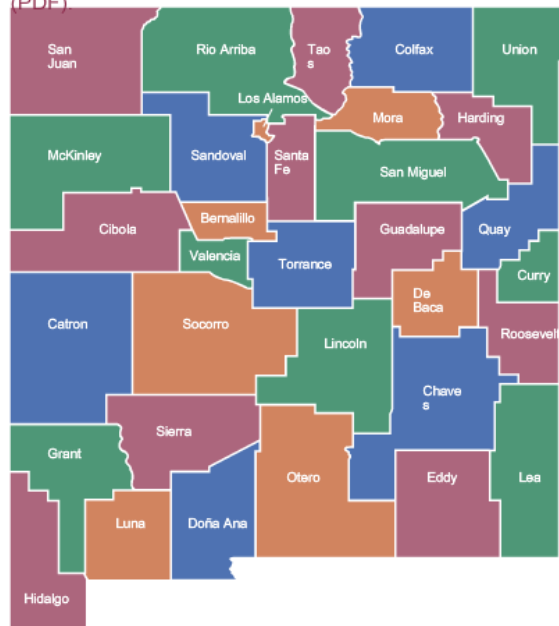
- Expansion of Arrowhead Drive to 4 lanes
- \$27 million investment in last 4 years

# *Policy Analysis*

## WHAT WE DO:

Analyze public policies and economic impacts.

Click a county to download its Economic Base Study (PDF)



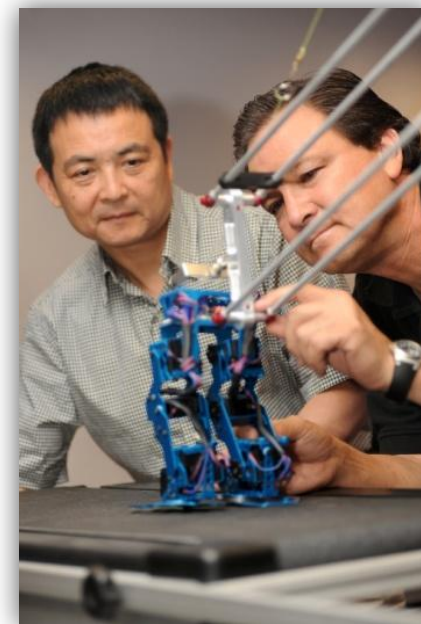
## HOW WE DO IT:

- Economic base studies
  - All New Mexico counties and SMSAs
- Economic impact studies
- Fiscal analyses and industry studies
  - Includes NM fossil fuel project for Department of Energy
- Economic policy analyses



# *Technology Commercialization*

- Pathways through which the innovations developed by NMSU researchers may have the greatest scholarly, economic, and social impacts.
- Successful technology commercialization includes a range of activities, from IP management to technology licensing to start-up business formation.
- Portfolio
  - Registered copyrights = 8
  - Patents awarded = 28
  - Patents Pending = 12
  - Provisional Patents = 3
- Leading the Launch proof of concept program.
- Learning and efficiency through Technology Commercialization Associates program.



# *Launch*

## WHAT WE DO:

Move innovative technologies from NMSU laboratories and development settings to market.

## HOW WE DO IT:

- **Award up to \$25,000 cash** for technology development, market assessment, and business planning activities.
- **Provide researchers and technologists commercialization assistance.**
- **Provide mentoring and access to investment networks.**

## WHO WE DO IT FOR:

NMSU faculty, staff, and students in all disciplines and fields of research.

# *Launch*

## FIRST AWARDEES

Drs. Jeffrey Arterburn, Charles Shuster, and Kevin Houston



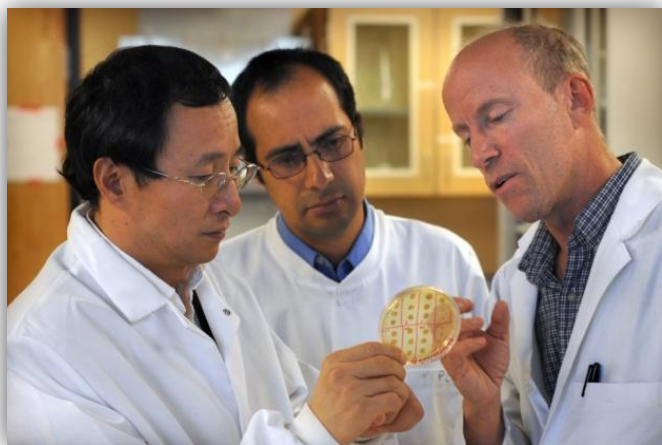
A new class of fluorescent organic dyes and associated compounds referred to as “HPY-Dyes.”

Applications in biological, biomedical, and biotechnology fields as indicators of cell viability and function.

# *Launch*

## FIRST AWARDEES

Drs. Geoffrey Smith and Shuguang Deng



Biohydrogenesis™ is a bacteria culture that produces large quantities of hydrogen gas and is able to capture that gas in a biopolymer.

Represents a potential U.S. domestic source of energy that may be very economical and does not use food sources (e.g., ethanol industry's use of corn).

## *For More Information*



### **Contact Arrowhead Center**

Visit our website at [arrowheadcenter.nmsu.edu](http://arrowheadcenter.nmsu.edu)

Contact Kevin Boberg at (575) 646.1334 or  
[kboberg@nmsu.edu](mailto:kboberg@nmsu.edu)